

ABSTRACT OF THE DISCLOSURE

Long QT Syndrome (LQTS) is a cardiovascular disorder characterized by prolongation of the QT interval on electrocardiogram and presence of syncope, seizures and sudden death. Five genes have been implicated in Romano-Ward syndrome, the autosomal dominant form of LQTS. These genes are *KVLQT1*, *HERG*, *SNSN5A*, *KCNE1* and *KCNE2*. Mutations in *KVLQT1* and *KCNE1* also cause the Jervell and Lange-Nielsen syndrome, a form of LQTS associated with deafness, a phenotypic abnormality inherited in an autosomal recessive fashion. Mutational analyses were used to screen 262 unrelated individuals with LQTS for mutations in the five defined genes. A total of 134 mutations were observed of which eighty were novel.